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PATENT APPLICATION

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JASON PETER ANDREW
CHARLESWORTH et al.

Application No.: 09/840,886

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Technology Center 2600

Commissioner for Patents
Washington, D.C. 20231

**SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**

Sir:

Further to the Information Disclosure Statement dated April 12, 2002, and prior to examination of the above-identified application, Applicants respectfully direct the Examiner's attention to the documents listed below and on the attached Form PTO-1449. A copy of each document so listed is enclosed.

- (1) U.S. Patent No. 5,835,667
- (2) U.S. Patent No. 6,026,398
- (3) U.S. Patent No. 4,975,959
- (4) U.S. Patent No. 5,131,043
- (5) U.S. Patent No. 4,903,305
- (6) U.S. Patent No. 5,390,278
- (7) U.S. Patent No. 5,708,759
- (8) U.S. Patent No. 5,752,227
- (9) U.S. Patent No. 4,985,924
- (10) U.S. Patent No. 5,684,925
- (11) U.S. Patent No. 4,736,429
- (12) U.S. Patent No. 5,737,723
- (13) U.S. Patent No. 5,333,275
- (14) U.S. Patent No. 5,075,896
- (15) U.S. Patent No. 6,243,680
- (16) U.S. Patent No. 5,873,061
- (17) U.S. Patent No. 6,182,039
- (18) U.S. Patent No. 6,389,395
- (19) U.S. Patent No. 5,983,177
- (20) U.S. Patent No. 5,577,249
- (21) U.S. Patent No. 5,799,267

- (22) EP 0 649 144
- (23) EP 0 597 798
- (24) EP 0 689 153

- (25) GB 2 302 199
- (26) GB 2 331 816
- (27) GB 2 355 835
- (28) GB 2 355 836
- (29) GB 2 355 837

- (30) WO 98/47084
- (31) WO 99/05681
- (32) WO 01/31627

- (33) Bahl, et al., "A Method For The Construction of Acoustic Markov Models For Words," Oct. 1993, IEEE Transactions on Speech and Audio Processing, Vol. 1, Issue 4, pp. 443-452

- (34) Besling, S., "A Statistical Approach To Multilingual Phonetic Transcription," Philips Journal of Research, Vol. 49, No. 4, 1995, pp. 367-379

- (35) Bird, Steven, et al. "A Formal Framework for Linguistic Annotation," March 1999
- (36) Bird, Steven, et al., "Towards A Formal Framework for Linguistic Annotations," Dec. 1998
- (37) Cassidy, S. & Harrington, J., "EMU: an Enhanced Hierarchical Speech Data Management System," Proc. Of the 6th Australian Speech Science and Technology Conference, 1996, pp. 381-386
- (38) Foote, J., "Unconstrained Keyword Spotting Using Phone Lattices With Application To Spoken Document Retrieval," Computer Speech and Language, 11, 1997, pp. 207-224
- (39) Gagnoulet, et al., "Mairievox: A voice-activated information system," Speech Communication, Vol. 10, No. 1, 1991, pp. 23-31
- (40) Haeb-Umbach, et al., "Automatic Transcription Of Unknown Words In A Speech Recognition System," IEEE, Vol. 1, 1995, pp. 840-843
- (41) Jokinen, et al., "A Comparison Of Approximate String Matching Algorithms," Software - Practice and Experience, 1996, Vol. 26, No. 12, pp. 1439-1458
- (42) Kobayashi, et al., "Matching Algorithms Between A Phonetic Lattice and Two types Of Templates - Lattice and Graph," IEEE, 1985, pp. 1597-1600
- (43) Lee, Kai-Fu, "Automatic Speech Recognition," The Development of the SPHINX System, Kluwer Academic Publishers, 1989, pp. 28-29
- (44) Markowitz, "Using Speech Recognition," Prentice Hall, 1996, p. 221.
- (45) Micca, G., et al., "Three Dimensional DP For Phonetic Lattice Matching," Elsevier Science Publishers, 1987, pp. 547-551
- (46) Ng, Kenny, "Survey Of Approaches To Information Retrieval Of Speech Messages," February 16, 1996, pp. 1-34
- (47) Ng, Kenny, "Subword Unit Representations For Spoken Document Retrieval," Eurospeech, 1997

- (48) Ng, Kenny, "Phonetic Recognition For Spoken Document Retrieval," ICASSP, 1998
- (49) Srinivasan, S. & Petkovic, D., "Phonetic Confusion Matrix Based Spoken Document Retrieval," Proceedings of the 23rd Annual International ACM SIGIR Conference on Research and Development in Information Retrieval, July 24-28, 2000, pp. 81-87
- (50) Wechsler, et al., "Spoken Document Retrieval Based on Phoneme Recognition," 1998, pp. 1-121
- (51) Witbrock & Hauptmann, A.G., "Using Words and Phonetic Strings For Efficient Information Retrieval From Imperfectly Transcribed Spoken Documents," Proceedings of the 1997 2nd ACM International Conference on Digital Libraries, July 1997, pp. 30-35
- (52) Wold, et al., "Content-Based Classification, Search, and Retrieval of Audio," IEEE Multimedia, Vol. 3, No. 3, 1996, pp. 27-36
- (53) Wright, J., et al., "Statistical Models For Topic Identification Using Phoneme Substrings," IEEE, 1996, pp. 307-310
- (54) "Maximum Entropy and Bayesian Methods", Cambridge, England, 1988, Proceedings of the Eighth Maximum Entropy Workshop, John Skilling (editor), published by Kluwer Academic Publishers, pp. 45-52
- (55) Schmid, Phillip et al., "Automatically Generated Word Pronunciations From Phoneme Classifier Output", Statistical Signal and Array Processing, Minneapolis, April 27-30, 1993, ICASSP, Vol. 4, pp. 223-226
- (56) "Template Averaging for Adapting a Dynamic Time Warping Speech Recognizer", IBM Technical Disclosure Bulletin, Vol. 32, No. 11, April 1, 1990, pp. 422-426
- (57) Jain, N. et al., "Creating speaker-specific phonetic templates with a speaker-independent phonetic recognizer: implications for voice dialing", 1996 IEEE International Conference on Acoustics, Speech, and Signal Processing Conference Proceedings, 1996, Vol. 2, pp. 881-884

(58) Zobel, J. et al., "Phonetic String Matching: Lessons from Information Retrieval", Sigir Forum, Association for Computing Machinery, 1996, pp. 166-172

Documents 27 to 29 and 32 were cited in the specification at page 18.

Document 27 was cited there as GB 9925574.7, document 28 as GB 9925562.2, document 29 as GB 9925576.2, and document 32 as GB 9925561.4. Document 54 was cited in the specification at page 58. These documents are believed to be pertinent for the reasons noted on those respective pages.

Documents 55 to 58 were cited during prosecution of European patent application EP 01 30 4243, which corresponds to the above U.S. application. A copy of the European Search Report for EP 01 30 4243 is enclosed.

Documents 20, 21, 26, 31, 34 and 41 were cited during prosecution of European patent application GB 9925561, which corresponds to the above U.S. application. A copy of the European Search Report for GB 9925561 is enclosed.

Documents 22, 23, 37, 39 and 51 were cited during prosecution of PCT application PCT/GB 00/00718, which corresponds to the above U.S. application. A copy of the International Search Report for PCT/GB 00/00718 is enclosed.

Inasmuch as the subject application has not yet received a first Office Action, it is believed that this Information Disclosure Statement is timely. See 37 C.F.R. § 1.97(b)(3). Accordingly, the Examiner is urged to study this information in its entirety and to form an independent determination of the materiality of the information to the claimed invention. Additionally, the Examiner is requested to indicate that this information has been considered by initialing the appropriate portion of the attached Form PTO-1449.

Applicants' undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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